

[8]9. FISH AND WILDLIFE

a. **Minimize Habitat Loss.** The major wildlife values in this subunit are the three species of ptarmigan, black bear, brown bear, and moose which utilize the river corridor and the eastern and southern slopes of Government Peak. Habitat loss beyond that amount impacted by the construction of the proposed roads, facilities, and ski runs will be minimized by existing lease requirements and other adopted guidelines. The planned Government Peak Trail will be non-motorized.

b. **Wildlife Viewing Opportunities.** Beaver ponds occur beside the Little Susitna River near MP 13 of the Hatcher Pass Road. Opportunities for viewing beaver from the road should be developed and/or protected. Because this subunit is intended to be the major tourism and developed recreation area within the management unit, this and other opportunities for wildlife viewing should be developed.

c. **Wildlife habitat enhancement.**

(1) Enhancement areas.

The criteria for areas with potential for habitat enhancement are:

. elevation below 800 feet;

. slope less than 30 percent; and

. a majority of vegetative ground cover suitable for high to moderate forage production through rehabilitation and enhancement.

The following areas within Subunit B meet these criteria and have high to moderate potential for habitat enhancement to mitigate unavoidable effects of the resort development on large animals, especially moose. Habitat enhancement will be encouraged in these areas. To the extent possible, development in Subunit B should be designed and located to allow wildlife enhancement to occur in portions of these areas. (See enhancement guidelines in Chapter 3)

T19N, R1E, SM

Section 29: N1/2 SE1/4; SE1/4 SE1/4

Section 28: S1/2

Section 27: S1/2

(2) Enhancement techniques may include, where appropriate, small clearcuts, thinning, stimulating, or manipulating undergrowth, hydroaxing or cutting with hand tools, scarification, planting, and fertilizing.

(3) Design of habitat enhancement projects in these sections shall be conducted as part of the master development plan for the leasehold. Enhancement within this subunit will be designed so that it does not detract from the scenic setting of the resort and to minimize visual impacts from outside the lease.

(4) Enhancement projects must be approved by the Department of Natural Resource before they may be undertaken; DNR will consult with the developer prior to approving enhancement projects.

(5) During the formation of the amendment to the Hatcher Pass Plan, agreement was reached that lands should be managed for moose habitat enhancement near Bench Lake in the Deception Creek area. The Deception Creek Land Use Plan is the proper forum to now address and implement this agreement balancing other competing uses (including Matanuska-Susitna Borough land selections). If the Deception Creek Land Use Plan determines that these lands will not be used for habitat enhancement, DNR will provide alternative habitat enhancement sites in the same general area.

(6) To ensure the implementation of the applicable habitat mitigation and enhancement elements of this plan, the Department of Natural Resources will pursue a variety of options including timber sales, private sector contributions, and public expenditures.

d. If DNR determines that it is necessary to petition the Board of Fish and Game to change hunting regulations within the lease area, DNR will consult with the Department of Fish and Game prior to petitioning the Board.

e. Consider identifying wildlife viewing areas with signs in appropriate locations in greenbelt and other undisturbed habitats along the new resort trail and road network.

f. Establish a 1000-foot wide greenbelt below the base of Government Peak extending east and west through Subunit B. The greenbelt could coincide with a "restricted development area" within the vicinity of the Castle Mountain Fault; it may be higher on the slopes (e.g., upslope from the 1400-foot contour at the western edge of Subunit B and the 1700-foot contour at the northeastern edge of Subunit B.); or it may be located in the southern part of Subunit B, connecting the east-west boundaries with the habitat enhancement areas identified in sections 27 through 29. Clearing of vegetation within the greenbelt should be restricted to the minimum necessary for access through the area. Access routes should be substantially perpendicular to the greenbelt.

g. Provide a greenbelt of relatively undisturbed vegetation parallel to the slope, approximately one-quarter mile wide, and below 2000 feet elevation from the base facilities in Subunit A south to Subunit B in order to maintain an area for wildlife movement in a north-south direction.

h. Establish ¼ mile (1/8 mile on either side) wide green belts along both Government Creek and the unnamed anadromous fish stream located in the east ½ of section 21 and 28 T19N, R1E, S.M. These greenbelts will provide needed wildlife migration corridors from alpine to forest habitat types and to the south of the lease area. Additionally, these greenbelts will provide protection for important riparian habitat.

Clearing of vegetation within this greenbelt should be restricted to the minimum necessary to provide access (substantially perpendicular) through the area.

i. In Subunit B, cross-country ski trails should be located away from greenbelt areas to the extent possible. Trails within greenbelt areas should have adequate separation to minimize disturbance to moose caused by skiers on winter range.

j. The construction of fences in wildlife habitat areas should be minimized. Fences (other than bear-proof fences for garbage collection areas or as described in guideline k below) should be designed to allow for free passage of wildlife where feasible. The Chapter 3 fencing guidelines listed in the Grazing section apply to fencing within the resort to the extent applicable. Provisions for free wildlife movements are particularly important in Subunit B.

k. Prevent moose-motor vehicle collisions by implementation of some or all of the following measures:

(1). Minimize the length and number of roads within the resort lease area.

(2). Design resort roads for slow driving speeds without compromising other safety concerns such as maintenance of safe line-of-sight distance.

(3). Motor vehicle speeds should be regulated in areas known to be important moose movement/migration routes in order to minimize moose-motor vehicle collisions.

(4). Provide fencing adjacent to roads as necessary to direct moose to safe crossing areas.

(5). Provide street lighting at known moose crossings.

(6). Educate resort visitors about ways of avoiding moose-motor-vehicle collisions through brochures, pamphlets, audio-visual methods, interpretative displays, or other appropriate methods.

(7). Other measures as appropriate.

During the master development planning phase and subsequent operations, DNR, based on recommendations from ADF&G and in consultation with the developer, will decide which of these measures to implement.

l. To minimize damage to native soils and root systems, the clearing of vegetation for ski runs and/or trails in alpine and subalpine areas should incorporate low ground pressure equipment to the maximum extent possible. Except for road surfaces, foundations, and hardened trails, 100 percent of the ground cover and a minimum of 50 percent of natural shrubs and trees should be maintained in alpine and subalpine areas. (See also revegetation guidelines above.)

m. Skiing off established trails in known moose overwintering areas should be avoided.

n. To minimize impacts to the alpine and subalpine zones and proposed greenbelt areas, equestrian trails should be routed adjacent to established access roads and trails.

o. Where feasible and desirable, revegetation of disturbed areas should utilize willow plantings.

p. DNR will take all reasonable and appropriate action to minimize human and large mammal conflicts. A program for minimizing human and large mammal (e.g., moose, bear) conflicts will be implemented by means of some or all of the following measures:

(1) The developer, based on recommendations from ADF&G and DNR, will prepare and implement a management plan to provide for closures of affected areas (but not entire resort) to public use when and where there is a high likelihood of human-bear conflict.

(2) The developer, based on recommendations from ADF&G and DNR, will create a trail management plan that will channel resort visitors onto designated trails and away from areas that have a high likelihood of human-wildlife conflict and away from sensitive areas. For example, the plan should pay special attention to moose and bear.

(3) DNR, in consultation with the developer, may establish measures such as closures or a permit program to manage back country use to minimize impacts on bear denning and breeding areas.

(4) The developer will educate resort visitors about ways of avoiding human and large mammal (e.g. moose, bear) conflicts through brochures, pamphlets, audio-visual methods, interpretative displays, or other appropriate methods.

(5) Place signs at strategic locations informing users of areas where bears may occur, e.g., berry production areas; these signs should include safety precautions and procedures for avoiding bear encounters.

(6) The developer may propose other methods to prevent human and large mammal (e.g., moose, bear) conflicts. The proposed methods should be reviewed by ADF&G to determine their feasibility before implementation.

During the master development planning phase and subsequent operations, DNR, based on recommendations from ADF&G and in consultation with the developer, will decide which of these measures to implement.

g. Prohibit the outdoor storage of garbage in the alpine and subalpine zone during April 1 through October 31. All garbage should be transferred to base facilities for disposal on a daily basis.

r. Garbage from the resort and ancillary facilities should be removed to an appropriate site or, if disposed of on site, should be disposed of by fuel-fired incineration on a regular basis (daily if possible).

s. All trail heads, lift houses, and other developed access points, should have public information posted on how to avoid conflicts with bears and rules on back country use including packing out garbage.

t. Open-pit garbage dumps (including those with surface burning) within the lease should not be permitted.

u. Bear-proof fencing or bear-proof containers should be used at all garbage storage and transfer sites.

v. Habitat Mitigation Plan. The developer must provide a habitat mitigation plan that describes specific design methodology that the developer will use to minimize direct and irrevocable habitat loss. The plan shall estimate the number of acres of wildlife habitat lost by the placement of improvements. The plan must describe construction techniques that the developer will employ to reduce or eliminate long-term effects on the habitat disturbed during construction. Furthermore, the plan must describe long term maintenance strategies that the developer will use for habitat that will be modified to enhance recreational values such as ski trails.

10. OTHER ENVIRONMENTAL QUALITY GUIDELINES

a. Environmental Studies. Environmental studies should be undertaken during the planning and development of the ski resort in order to:

- (1) provide sufficient data to minimize impacts to fish and wildlife habitat during construction and operation of the resort and to determine how best to mitigate for loss of fish and wildlife habitat;
- (2) to establish baseline water quantity and quality and to monitor water quantity and quality and other environmental quality factors during operation of the resort;
- (3) and to provide sufficient engineering geology, soils and vegetation data to prevent or minimize erosion and safety hazards to the public.

b. Water and Wastewater Systems. The developer should consider serving development "nodes" with their own water supply and/or wastewater disposal systems. This would be preferable to constructing large systems, with extensive sewage collection and water distribution systems, to serve the entire development, because it would be less expensive and because the amount of discharge to a